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Editorial

This issue is the continuation of the previous one in providing a mixture of regular papers and those originating from our sister conference *Information Technology Interfaces ITI 2013*. In this respect it encompasses two regular papers and four consistently revised and enlarged versions of *ITI 2013* presentations. I would again like to extend my thanks to *ITI 2013* Chair Professor Vesna Lužar-Stiffler and our Editor Professor Robert Manger for their help in managing the selection of these papers.

MANET (Mobile Ad-hoc NETwork), the rapidly deployable self-configuring wireless network providing relay service, is the object of study of the first two papers. Sofiane Hamrioui, Pascal Lorenz, Jaime Lloret and Mustapha Lalam consider the interaction of two routing (AODV, DSR) and two transport protocols (TCP New Reno, Vegas) through simulation of different node mobility and network load in their paper titled *A Cross Layer Solution for Better Interactions between Routing and Transport Protocols in MANET*. They introduce a novel solution for better interaction between the above protocols, named CL-TCP (Cross Layer TCP), which shows significant improvements in the TCP Vegas – AODV interaction. On the other hand, Sumathy Subramaniam, R. Saravanan and Pooja K. Prakash propose a new metric termed Network Lifetime Enhancer to be used in selecting and prioritizing of candidate next-hop nodes within opportunistic routing in MANETs. In their paper *Trust Based Routing to Improve Network Lifetime of Mobile Ad Hoc Networks* they describe this metric, which shows improvements in considering network lifetime through residual battery energy, along with a trust model being used prior to selecting the candidate node. Simulation results thus obtained indicate that the routing technique based on the above metric outperforms existing techniques in determining the trusted route and extends the lifetime of the network as a whole.

Boris Jukic, Nenad Jukic and Svetlozar Nestorov propose a methodology for providing clear and consistent integration of the process and data logic in the analysis stage of information systems' development lifecycle. They illustrate this approach in their paper titled *Process and Data Logic Integration: Logical Links between UML Use Case Narratives and ER Diagrams* in the context of UML use cases for process modeling and ER diagrams for data modeling.

The objective of the paper by Ramesh Sharda, Daniel Adomako Asamoah and Natraj Ponna, titled*Research and Pedagogy in Business Analytics: Opportunities and Illustrative Examples*, is to provide both a research and teaching introduction to business analytics in the context of both current and prospective perspective of the business analytics domain. In this respect, the authors provide a short overview of the area of business analytics, include a brief description of some research projects they presently work on, and discuss teaching opportunities in analytics.

In their paper *A New Model for Semiautomatic Student Source Code Assessment*, Emil Stankov, Mile Jovanov, Ana Madevska Bogdanova and Marjan Gusev address the issue of fast assessment of solutions to student programming tasks. Contrary to the usual approach undertaken, which relies on automated systems to check the produced output for some test cases for every solution, they propose a new model based on vector representations of program codes, which are subsequently analyzed using data mining techniques. They report positive results of such an approach.

Domain-aware Evaluation of Named Entity Recognition Systems for Croatian by Željko Agić and Božo Bekavac focuses on addressed text domain dependence of statistical named entity recognition and classification in Croatian texts from a viewpoint of text domain sensitivity. In their research the authors manually annotated a dataset of Croatian text from various domains within the newspaper text genre, applying a three-class named entity tagset. Using the state-of-the-art Stanford NER system, they provide insight to feature selection, domain sensitivity and effects of increase in training set size for statistical named entity recognition.

Vlado Glavinić

Editor-in-Chief